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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/742,897

12/23/2003

Louis Gregory Alster

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22852

7590

11/08/2005

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EXAMINER

PHAN, HAU VAN

ART UNIT

PAPER NUMBER

3618

DATE MAILED: 11/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/742,897	Applicant(s) ALSTER ET AL.	
	Examiner Hau V Phan	Art Unit 3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-18 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-18 and 20-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Acknowledgment

1. The amendment filed on 10/6/2005 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-3, 5-18, 20-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama et al. (5,350,031) in view of Moore (6,306,056).**

Sugiyama et al. in figure 1, disclose a plural generator apparatus for an electric hybrid vehicle comprising an engine (1), a first electric generator (21), a second electric generator (22), an energy storage device (5) adapted to receive the first output from the first electric generator and the second output from the second electric generator and an electric motor (7) operatively connected to the energy storage device. The electric motor is operable to generate mechanical power. Sugiyama et al. fail to show a second engine.

Moore in figure 1, teaches a dual engine hybrid electric vehicle comprising a first engine (12) and a second engine (18). Moore also teaches a controller (70), which is configured to operate the first internal combustion engine within a first range of

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rotations per minute and the second engine has operational within a second range of rotations per minute. Wherein the first range of rotations per minute is greater than the second range of rotations per minute. The first engine is running during the normal operation (rpm 1) and the second engine provides additional driving torque requirement to the vehicle (rpm2). Therefore, the first engine should have the rotation per minute greater than the rotation per minute than the second engine. Moore also teaches the controller determining the first, which is operating outside of a predetermined set of operating parameters associated with the first range of rotations per minute, if the first engine is operating outside the predetermined set of parameter, the controller provides a signal to the second engine to turn on the second engine for providing additional torque to the vehicle. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the electric hybrid vehicle of Sugiyama et al. with the addition of a second engine as taught by Moore in order to assist the first engine in providing torque to the driving wheel of the vehicle.

Regarding claim 2, Sugiyama et al. disclose the energy storage device that is a battery.

Regarding claims 3 and 18, Moore discloses the first and second engines having a substantially similar torque output capacity.

Regarding claims 5 and 20, Moore discloses the first engine having preferred operational characteristics within a first torque range and the second engine has preferred operational characteristics within a second torque range, and wherein the first torque range is greater than the second torque range.

Regarding claims 6 and 21, Sugiyama et al. disclose the first output of the first generator, which is greater than the second output of the second generator.

Regarding claims 7 and 22, Moore discloses a heat exchanger operatively connected with the first engine and the second engine (col. 3, lines 28-36).

Regarding claims 8 and 23, Moore discloses a transmission axle adapted to be driven by the electric motor (figure 2).

Regarding claims 9 and 24, Moore discloses a controller (as shown in figure 6) operatively connected with the first engine and the second engine. The controller adjusts the operation of the first engine and the second engine based on current operating conditions.

Regarding claim 25, Moore discloses the second engine having a specific fuel consumption within the second range of rotations per minute that is lower than a specific fuel consumption of the first engine when the first engine operates outside of the first range of rotations per minute.

Regarding claim 26, Moore discloses the second engine having a specific fuel consumption within the second range of rotations per minute that is lower than a specific fuel consumption of the first engine when the first engine operates outside of the first range of rotations per minute.

Regarding claim 27, Moore discloses the second internal combustion engine having a specific fuel consumption within the second range of rotations per minute that is lower than a specific fuel consumption of the first internal combustion engine when

the first internal combustion engine operates outside of the first range of rotations per minute.

Response to Arguments

4. Applicant's arguments filed 10/6/2005 have been fully considered but they are not persuasive. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Sugiyama et al. fail to show a second engine, Moore teaches a dual engine to provide additional torque to the driving wheels of the vehicle.

In response to applicant's remark on page 10, that Moore does not disclose at least a controller configured to operate the first engine within a first range of rotations per minute and the second engine within a second range rotations per minute, wherein the first range of rotations per minute is different than the second range of rotation per minute. The examiner disagrees, because Moore discloses a controller (70) to control the first engine, when the torque requirement is greater than the first engine can be supplied or whether the first engine is operating outside of a predetermined set of operating parameters, the controller is provided a signal to the second engine to provide additional torque to the drive wheel of the vehicle (Notice that the present invention

does not provide structural information of how the first and second engines get connected to the drive wheel).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau V Phan whose telephone number is 703-308-2084. The examiner can normally be reached on 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christ Ellis can be reached on 703-308-2560. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hau V Phan
11/4/05

Hau V Phan
Primary Examiner
Art Unit 3618